

03050206-070
(Four Hole Swamp)

General Description

Watershed 03050206-070 is located in Dorchester and Berkeley Counties and consists primarily of **Four Hole Swamp** and its tributaries from Dean Swamp to its confluence with the Edisto River. The watershed occupies 78,518 acres of the Lower Coastal Plain region of South Carolina. The predominant soil types consist of an association of the Hobcaw-Mouzon-Albany-Daleville-Rains series. The erodibility of the soil (K) averages 0.20; the slope of the terrain averages 1%, with a range of 0-2%. Land use/land cover in the watershed includes: 0.70% urban land, 9.27% agricultural land, 4.12% scrub/shrub land, 0.33% barren land, 68.72% forested land, 16.22% forested wetland (swamp), 0.25% nonforested wetland (marsh), and 0.39% water.

As a reach of Four Hole Swamp, this watershed accepts the drainage from all streams entering the swamp system upstream. This section of Four Hole Swamp accepts drainage from Merkel Branch (Lake Merkel), Santee Branch (Rock Branch), and Walnut Branch (Coldwater Branch, Little Walnut Branch, Cane Branch, Crawford Branch, Lang Branch, Deep Branch, Marshall Branch) near the Town of Dorchester. Halfway Gut Creek enters the swamp next, followed by Timothy Creek, which flows past the Town of Ridgeville. Powder Horn Branch drains into the swamp at the base of the watershed. There are a total of 92.0 stream miles in this watershed. Four Hole Swamp is classified FW* (site specific classification requires DO not less than 4.0 mg/l and pH between 5.0-8.5), and the remaining streams are classified FW. The Francis Beidler Forest, a nature preserve, is another natural resource in the watershed.

Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
E-100	P	FW*	FOUR HOLE SWAMP AT US 78, E OF DORCHESTER
E-015A	W	FW*	FOUR HOLE SWAMP AT S-18-19

Four Hole Swamp - There are two monitoring sites along this section of Four Hole Swamp, which was Class B until April, 1992. At the upstream site (E-100), aquatic life uses are fully supported, but there is a significant decreasing trend in pH and significant increasing trends in turbidity and total suspended solids. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentrations suggest improving conditions for these parameters. A very high concentration of copper and a high concentration of lead were measured in the 1995 sediment sample. The pesticide isophorone was detected in the 1996 sediment sample, and the phthalate ester di-n-butylphthalate was detected in the 1994 sample. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentration. At the downstream site (E-015A), aquatic life uses are fully supported based on macroinvertebrate community data.

A fish consumption advisory has been issued by the Department for mercury and includes the streams within this watershed (see advisory p.31).

Permitted Activities

Point Source Contributions

RECEIVING STREAM
FACILITY NAME
PERMITTED FLOW @ PIPE (MGD)
COMMENT

NPDES#
TYPE
LIMITATION

TIMOTHY CREEK
SHOWA DENKO CARBON INDUSTRIES
PIPE #: 001 FLOW: 0.58 (PROPOSED)
WETLAND; WQL FOR DO, TRC, BOD5

SC0038555
MAJOR INDUSTRIAL
WATER QUALITY

LAND APPLICATION
FACILITY NAME

PERMIT #
TYPE

SPRAY FIELD
McDOUGALL YOUTH CENTER

ND0074098
MINOR COMMUNITY

Landfill Activities

SOLID WASTE LANDFILL NAME
FACILITY TYPE

PERMIT #
STATUS

SANDY PINES LANDFILL
MUNICIPAL

182401-1101
CLOSED

OAKRIDGE LANDFILL
SUBTITLE D

182400-1101
ACTIVE

SCA LANDFILL
MUNICIPAL

DWP-080
CLOSED

OLD DORCHESTER COUNTY (5-6 SITES)
MUNICIPAL

DWP-080
CLOSED

Mining Activities

MINING COMPANY
MINE NAME

PERMIT #
MINERAL

DORCHESTER DIRT CO., INC.
DIAMOND MINE #3

1027-18
SAND/CLAY

D&A PARTNERSHIP
CARTER MINE

1047-18
SAND/CLAY

D&A PARTNERSHIP
GIVENS MINE

1085-18
SAND/CLAY

SANDERS BRO. ASSOC.
BIG OAK MINE

1031-18
SAND

BLUE CIRCLE CEMENT CO.
HARLEYVILLE QUARRY

0110-18
LIMESTONE

GIANT CEMENT CO.
HARLEYVILLE MINE

0120-18
LIMESTONE

**DORCHESTER MINING, INC.
DORCHESTER MINE**

**0923-18
SAND/CLAY**

**CHAMBERS OAKRIDGE LANDFILL, INC.
DORCHESTER DIRT PIT**

**0530-18
SAND/CLAY**

**MORGAN CORPORATION
MORGAN MINE**

**1000-18
SAND/CLAY**

**ACD, A PARTNERSHIP
RIDGEVILLE MINE**

**0870-18
CLAY**

Growth Potential

Interstate 26 bisects this watershed and some growth may occur near the interchanges at the Towns of Harleyville and Ridgeville. A rail line and U.S. Highway 178/78 parallels I-26; another rail line crosses Highway 78 at S.C. Highway 453.